4.0 ENVIRONMENTAL IMPACT ANALYSIS

This section contains a discussion of the possible environmental effects of the proposed Agricultural Cluster Subdivision Program for the specific issue areas that were identified as having the potential to experience significant impacts.

"Significant effect" is defined by the State CEQA Guidelines §15382 as "a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. An economic or social change by itself shall not be considered a significant effect on the environment, but may be considered in determining whether the physical change is significant."

The assessment of each issue area begins with the setting. This is followed by the impact analysis. Within the impact analysis, the first subsection identifies the methodologies used and the "significance thresholds." Significance thresholds are those criteria adopted by the County or other agencies, which are universally recognized, or are developed specifically for this analysis to determine whether potential effects are significant. The next subsection describes each impact of the proposed project, mitigation measures for significant impacts, and the level of significance after mitigation. Each effect under consideration for an issue area is separately listed in bold text, with the discussion of the effect and its significance following. Each bolded impact listing also contains a statement of the significance determination for the environmental impact, as follows:

> *Class I. Significant and Unavoidable: An impact that cannot be reduced to below the threshold level given reasonably available and feasible mitigation measures. Such an impact requires a Statement of Overriding Considerations to be issued if the project is approved per §15093 of the State CEQA Guidelines.*
>
> *Class II. Significant but Mitigable: An impact that can be reduced to below the threshold level given reasonably available and feasible mitigation measures. Such an impact requires findings to be made under §15091 of the State CEQA Guidelines.*
>
> *Class III. Less than Significant: An impact that may be adverse, but does not exceed the threshold levels and does not require mitigation measures. However, mitigation measures that could further lessen the environmental effect may be suggested if readily available and easily achievable.*

Following each environmental impact discussion is a list of recommended mitigation measures (if required) and the residual effects or level of significance remaining after the implementation of the measures. In those cases where the mitigation measure for an impact could have a significant environmental impact in another issue area, this impact is discussed as a residual effect. The impact analysis concludes with a discussion of cumulative effects, which evaluates the impacts associated with the proposed project in conjunction with other future development in the area. A discussion of effects found to be less than significant is found in Section 4.13 of the EIR.

4.0.1 Methodology for Assessing Impacts

CEQA requires that a "project" be evaluated based on its change from existing environmental conditions. A project's baseline is normally comprised of the existing environmental setting, not what is hypothetically allowed pursuant to existing zoning or permitted plans. As required by CEQA, this EIR evaluates the program's impacts on the existing environmental conditions; however, for informational purposes, the EIR also evaluates the program's impacts compared to the development potential under the existing ordinance.

In the following sections, each potential impact of the program is described under two separate headings:

- **Impacts Compared to Existing Conditions.** Under this heading, the EIR evaluates the program's impacts against the existing baseline environmental conditions, as required under CEQA. In doing so, the EIR describes the changes to the existing environmental conditions that could result from the proposed program. Specifically, existing conditions are represented by existing undeveloped and underdeveloped parcels in the Agriculture land use category.

- **Impacts Compared to Development Potential under the Existing Ordinance.** Under this heading, the EIR evaluates the program's impacts by comparing the development potential allowed under the proposed amendments to the hypothetical development potential allowed under the existing agricultural cluster subdivision ordinance. In doing so, the EIR describes the *difference* between the foreseeable impacts of the ordinance as it currently exists and after implementation of the proposed amendments. This comparison is intended to describe the change in environmental effects that is anticipated to result from the proposed amendments; however, by itself, this comparison does not meet the requirement of CEQA to evaluate a project's impacts against the "existing environmental conditions."

In evaluating potential environmental impacts, the EIR is to consider any changes to the existing environmental conditions. However, this consideration does not extend to pre-existing policies that are re-adopted without change. *Black property owners v. City of Berkeley (22 Cal. App. 4th 974).* Therefore, this EIR will consider the changes that are proposed as part of this amendment package, in relation to the existing physical environmental conditions (as required by CEQA) and existing ordinance provisions (for informational purposes only). This EIR does not consider the environmental effects of the proposed amendment package in relation to the environmental effects that could occur from the existing ordinance and general plan requirements. This evaluation is consistent with the requirements outlined in *Environmental Planning and Information Council v. The County of El Dorado (131 Cal. App. 3d 350).*

4.0.2 Irreversible Environmental Effects

Public Resources Code Sections 21100(b)(2) and 21100.1(a) require that EIRs prepared for the adoption of plan, policy, or ordinance of a public agency must include a discussion of significant irreversible environmental changes as:

> *Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. In addition, irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.*

Implementation of the proposed Agricultural Cluster Subdivision Program would result in greater protection and conservation of resources than plans, programs and policies currently adopted by the County. Therefore the proposed project is not anticipated to have significant irreversible environmental changes.

4.0.3 Energy Conservation

In order to assure that energy implications are considered in project decisions, CEQA requires that EIRs include a discussion of the potential energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful and unnecessary consumption of energy (see Public Resources Code section 21100(b)(3)). According to Appendix F of the State CEQA Guidelines, the goal of conserving energy implies the wise and efficient use of energy including: (1) decreasing overall per capita energy consumption; (2) decreasing reliance on natural gas and oil; and (3) increasing reliance on renewable energy sources.

The proposed Agricultural Cluster Subdivision Program includes several ordinance revisions which substantially reduce development potential in rural and agricultural areas of the county. These revisions include: elimination of minor agricultural clusters, elimination of agricultural cluster subdivision as an option in the RL category, reducing the distance to URLs for agricultural cluster eligibility, elimination of agricultural cluster development associated with properties under Williamson Act contract, and elimination of the density bonus. The result of these revisions would be that 4,163 fewer residential units could be constructed. This represents a 91 percent reduction in build-out compared to the existing ordinance, and a 71.2 percent reduction in greenhouse gas emissions generated by vehicle trips, residential energy usage, and construction. Nevertheless, when compared to existing baseline conditions (as required by CEQA), the proposed program would result in a potentially significant impact related to greenhouse gas emissions. To mitigate this impact, individual agricultural cluster projects would be required to apply all applicable and feasible strategies identified by the California Air Pollution Control Officers Association (CAPCOA) in their publication *CEQA and Climate Change* (refer to Mitigation Measure GHG-1). Although these strategies are specifically intended to reduce greenhouse gas emissions, they are largely centered on the reduction of energy usage in general. Such measures may include, but not be limited to, the following:

- *LEED Certification* – Require compliance with Leadership in Energy and Environmental Design (LEED) criteria, which incorporate sustainable site development, water savings, energy efficiency, materials selection, and environmental quality requirements.
- *Green Building Materials* – Use materials which are resource efficient, recycled, have a long life cycle, and are managed in an environmentally friendly way.

- *Landscaping* – Use of drought-resistant native trees, trees with low emissions and high carbon sequestration potential, and planting of trees to create shade.
- *Facilities* – Projects shall use high-efficiency pumps, natural gas or electric stoves (i.e. no wood-burning), solar water heaters, and energy star appliances.
- *Roofing* —Roofing shall be energy star compliant, vegetated (i.e. green roof), or light-colored and highly emissive.
- *On-Site Renewable Energy* – Provide an on-site renewable energy system.
- *Exceed Energy Requirements* – Exceed Title 24 (California Code of Regulations) energy requirements by 20 percent.
- *Solar Orientation* – Orient buildings to face either north or south, provide roof overhands, and use landscaping to create shade.
- *Shading* – Install energy-reducing shading mechanisms for windows, porches, patios, walkways, etc.
- *Ceiling Fans* – Install energy reducing ceiling fans.
- *Programmable Thermostats* – Install energy reducing programmable thermostats that automatically adjust temperature settings.
- *Passive Heating and Cooling* – Install passive heating and cooling systems.
- *Day Lighting* – Install energy reducing day lighting systems (e.g. skylights, light shelves, transom windows).
- *Local Building Materials* – Use locally made building materials for construction projects and related infrastructure.
- *Recycle Demolished Construction Materials* – Recycle or reuse demolished construction material.
- *Off-Site Mitigation Fee* – Provide or pay into an off-site mitigation fee program, which focuses primarily on reducing emissions from existing development and buildings.
- *Offset Purchase* – Provide or purchase offsets for additional emissions by acquiring carbon credits or engaging in other market "cap and trade" systems.

In addition to Mitigation Measure GHG-1, specific measures included by applicable building codes, County policies, and the project mitigation measures to conserve energy and minimize inefficient and unnecessary consumption of energy include:

- Mitigation measures to reduce fuel use during construction and/or increase equipment efficiency (e.g., Air Quality Mitigation Measures AQ-1 and AQ-2);
- Mitigation measures requiring project applicants and all contractors to recycle at least 50 percent of waste generated by the project's construction activity;
- Per Land Use Ordinance (LUO) Title 22, Section 22.16.030, the cluster projects are required to incorporate a landscape with low-water requirements.

Future residences constructed under the proposed Agricultural Cluster Subdivision Program would be reviewed under the Cal Green Code, which was put into effect in January 2011. Compliance with this code is required for all new building permits. The code requires consideration of energy and water efficiency in building design. Compliance would reduce electricity consumption beyond what would otherwise be required. The County is also considering crafting a local-based green code to tailor specifications and requirements to our own County's needs.

In addition, the County's Conservation and Open Space Element (COSE) and CEQA Findings were adopted by the County Board of Supervisors on May 12, 2010. This COSE consolidates and revises five existing General Plan elements, including the Energy Element, and incorporates new material to address timely and relevant conservation issues, including energy resources. As an adopted Element of the County's General Plan, under State law the County's decision makers must consider the project's consistency with the COSE. Applicable goals and policies of the COSE and other applicable plans, ordinances, regulations, and standards are addressed in Appendix B of this of this EIR.

Compliance with all applicable building codes, as well as with County policies and the proposed mitigation measures identified in this EIR, would ensure that energy is conserved to the maximum extent possible.

4.0.4 Significant and Unavoidable Environmental Effects

State CEQA Guidelines Section 15126.2(b) requires an EIR to discuss unavoidable significant environmental effects, including those that can be mitigated, but not to a level of insignificance. Section 15093(a) of the CEQA Guidelines allows a decision-making agency, in approving a project, to determine that the benefits of a proposed project outweigh the unavoidable adverse environmental impacts of implementing the project. The County can approve a project with unavoidable significant adverse impacts if it prepares a "Statement of Overriding Considerations" setting forth the specific reasons for making such a judgment, and makes other findings required by CEQA Guidelines Section 15091.

Significant and unavoidable impacts were identified in the following issue areas:

- **Agricultural Resources – refer to Section 4.1 (Impact AG-1);**
- **Air Quality – refer to Section 4.2 (Impact AQ-2);**
- **Greenhouse Gases – refer to Section 4.6 (Impact GHG-1); and**
- **Noise – refer to Section 4.8 (Impact N-2).**

The reader is further referred to Sections 4.1 through 4.13 for complete details and analysis of environmental impacts.

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